THE SUBJECT MATTER CLAIMED IS:

1. ~~An~~ a spray-dried interferon-based dry powder composition for pulmonary delivery, said composition comprising a therapeutically effective amount of interferon in combination with a pharmaceutically acceptable carrier.

2. The composition of claim 1, wherein the composition is substantially free from penetration enhancers.

3. The composition of claim 2, wherein the carrier comprises HSA.

4. The composition of claim 3, wherein the carrier further comprises a carbohydrate bulking agent.

5. The composition of claim 1, wherein 95% of the mass of the dry powder composition has a particle size of less than 10 μm.

6. The composition of claim 5, wherein 80% of the mass of the dry powder composition has a particle size of less than 5μm.

7. A unit dosage form for pulmonary delivery of interferon, which dosage form comprises a unit dosage receptacle containing ~~an~~ a spray-dried interferon-based dry powder composition, which composition comprises a therapeutically effective amount of an interferon in combination with a pharmaceutically acceptable carrier.

8. A method of treating a disease state responsive to treatment by interferon, which method comprises pulmonarily administering to a subject in need thereof a physiologically effective amount of ~~an~~ a spray-dried interferon-based dry powder composition that comprises a therapeutically effective amount of an interferon in combination with a pharmaceutically acceptable carrier.

9. A method for aerosolizing a spray-dried ~~an~~ interferon-based dry powder composition that comprises a therapeutically effective amount of an interferon in combination with a pharmaceutically acceptable carrier, which method comprises:

dispersing an amount of the dry powder composition in a gas stream to form an aerosol and

capturing the aerosol in a chamber having a mouthpiece for subsequent inhalation by a patient.

10. A method for preparing an interferon-based dry powder composition that comprises a therapeutically effective amount of an interferon and a pharmaceutically acceptable carrier, which method comprises spray-drying an aqueous mixture of the interferon and the carrier under conditions to provide a respirable dry powder.